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10/534,365	12/05/2005	Stefan Virtanen	1515-1034	4900
<small>465</small> YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314			<small>7590</small> EXAMINER STEPHENSON, DANIEL P	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* STEFAN VIRTANEN

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Appeal 2009-013359  
Application 10/534,365  
Technology Center 3600

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Before LINDA E. HORNER, JOHN C. KERINS, and MICHAEL W.  
O'NEILL, *Administrative Patent Judges*.

O'NEILL, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

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<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown in the PTOL-90A cover letter attached to this decision.

## STATEMENT OF THE CASE

Stefan Virtanen (Appellant) appeals under 35 U.S.C. § 134 from the Examiner's decision finally rejecting claims 1 and 3-7. Appellant cancelled claim 2. We have jurisdiction under 35 U.S.C. § 6(b).

### *The Invention*

The claims on appeal relate to a reamer assembly including a shank and a conical drill bit.

Claim 1, reproduced below with emphasis added, is representative of the subject matter on appeal.

1. A reamer assembly (11) for widening a drilled pilot hole or for widening a hole that has been widened in a first step in a down-the-hole drilling operation, wherein the reamer assembly includes a shank (14) for attachment of the reamer [assembly] to the end of a down-the-hole hammer drill and a conical drill bit or crown (15), characterised in that the conical bit (15) of the reamer [assembly] is divided into at least three conical segments (18) which are terminated with a transverse end surface (21) which directly connects said conical segments, and in that at least three of said segments (18) include drill buttons (16) of which at least one drill button (16) in each of said at least three segments (18) is disposed at the same distance from the cent[er] axis of the drill bit as the at least one drill button (16) in each of the others of said at least three conical segments (18), *each of said conical segments (18) having plural drill buttons (16) disposed at different distances from the center axis of the drill bit.*

*The Rejections*

The following Examiner's rejections are before us for review:

Claims 1, 3-5, and 7 are rejected under 35 U.S.C. § 102(e) as anticipated by Brandenburg (U.S. Patent No. 6,799,648 B2, issued Oct. 5, 2004).<sup>2</sup> Ans. 3.

Claim 6 is rejected under 35 U.S.C. § 103(a) as unpatentable over Brandenburg. Ans. 4.

SUMMARY OF DECISION

We REVERSE.

OPINION

*Issue*

The determinative issue in this appeal is:

Did the Examiner err in finding that Brandenburg discloses that each of the conical segments has plural drill buttons disposed at different distances from the center axis of the drill bit because the Examiner interpreted both the conical surface 22 and the flat surface 24 to constitute the conical segment?

*Analysis*

Appellant contends that Brandenburg discloses buttons 30 on conical surfaces 22 (i.e., entitled "tapered section" in Brandenburg) and these buttons 30 are all at the same distance from the axis of rotation of the drill

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<sup>2</sup> The rejection has been reworded from the way it appears in the Examiner's Answer to delete claim 2 from the claim listing since claim 2 was cancelled by Appellant.

bit. App. Br. 3. Appellant also contends that Brandenburg does not have any buttons on the conical surfaces 22 which are disposed at different distances from the axis of rotation of the drill bit in order to meet the claim language of “each of said conical segments (18) having plural drill buttons (16) disposed at different distances from the center axis of the drill bit.” *Id.* and App. Br. Claims App’x. In other words, Appellant contends that all of the buttons 30 on the conical segments or tapered sections 22 of Brandenburg are at the same distance from the center axis of the drill bit because drill buttons 30 on the transverse end surface 24 (i.e., entitled “grinding face” in Brandenburg) do not satisfy the claim language that the drill buttons on the conical segments are disposed at different distances from the center axis of the drill bit as recited in claim 1. Reply Br. 2.

The Examiner’s position is that Brandenburg discloses all of the limitations of claim 1. Ans. 3-4. More particularly, the Examiner posits that Brandenburg discloses “[e]ach of the conical segments (18) having plural drill buttons (one on the flat portion and one on the angled portion, for a total of 2) disposed at different distances from the center axis of the drill bit.” Ans. 3-4. In responding to Appellant, the Examiner argues that “[t]he conical segment includes both the conical surface 22 and the flat portion 24 attached to it” and “it is the ‘conical segment’ which must have a plurality (read as 2) of bits at different distances from the center axis of the bit.” Ans. 5.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros, Inc.. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). The first step in an anticipation analysis is a proper

construction of the claims, and the second step is to compare the properly-construed claim to the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 353 F.3d 928, 933 (Fed. Cir. 2003). The scope of claims in patent applications is determined by giving claims “their broadest reasonable interpretation consistent with the specification” and “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

In performing the first step of an anticipation analysis by construing the claim terminology of “conical segment”, we look to whether Appellant’s Specification defines the term. Here, Appellant’s Specification clearly states that “the conical surface of the drill bit 15 of the reamer 11 is divided into a plurality of segments 18 each containing a plurality of drill buttons 16.” Spec. 3:27-29. One of ordinary skill in the art would interpret this passage from the Specification in combination with the disclosure of Appellant’s Figures 3-5 to mean that a conical segment 18 constitutes a portion of the conical surface between the edge 20 of the drill bit 15 and the transverse end surface 21 of the drill bit 15, but would not interpret the transverse end surface 21 to constitute a part of the conical segment 18.

Thus, one of ordinary skill in the art would not consider the Examiner’s interpretation that a “conical segment” of Brandenburg includes both the conical surface or tapered section 22 and the flat surface or grinding face 24 to be a reasonable interpretation. *See Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991) (anticipation requires “no difference between the claimed invention and the reference disclosure, *as viewed by a person of ordinary skill* in the field of the invention”) (emphasis added). As such, when performing the second

step of the anticipation analysis by comparing the properly-construed claim to the prior art, one of ordinary skill in the art would view only one of the tapered sections 22 of Brandenburg as constituting a conical segment, but would not consider the flat surface or grinding face 24 of Brandenburg as constituting a part of the conical segment.

The rejection of claim 6 on obviousness grounds in view of Brandenburg is based upon the same erroneous interpretation of the Brandenburg disclosure.

### CONCLUSION

The Examiner erred in finding that Brandenburg discloses each of the conical segments having plural drill buttons disposed at different distances from the center axis of the drill bit.

### DECISION

The Examiner's decision to reject claims 1, 3-5, and 7 under 35 U.S.C. § 102(e) as anticipated by Brandenburg and claim 6 under 35 U.S.C. § 103(a) as unpatentable over Brandenburg is reversed.

### REVERSED

mls

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